

LOWOOD SHOW SOCIETY INC

Email: lowoodshow@bigpond.com

DEMOLITION DERBY

Lowood Show - Saturday 11th June 2022

RULES & SPECIFICATIONS

ENQUIRIES: Phone 0421 329 152

**ALL COMPETITORS MUST ABIDE BY THESE RULES AND REGULATIONS FAILURE TO ABIDE
BY THESE RULES WILL RESULT IN EXCLUSION FROM THE EVENT**

DERBY RULES:

1. The Lowood Show Society Inc reserves the right to accept/refuse an entry.
2. ENTRY FEE for the Derby is \$35.00 per vehicle. This entitles the driver to one 1-day admission pass for the Show and the passenger to one 1-day admission pass for the Show.
3. Pit Crew will have to pay admission to the Show.
4. **NOTE: Fuel tanks MUST be a Scrutineer approved fuel tank and are the responsibility of the Entrant - Supply your own fuel tank and cover.**
5. Each Derby car entry must supply a Flag Stiff material (white or silver) [35cm (12") x 47cm (18")] attached to a 3/8" dowel rod 61cm (24") long.
6. Each derby car is to have a driver and passenger, both of whom are 17 years of age or older.
7. All cars must start and finish with a Driver and Passenger, both of whom are 17 years of age or older.
8. If either the Driver or Passenger is unable to continue, the vehicle cannot continue unless a member of the Pit Crew that has signed the entry form take their place in the vehicle.
9. The Driver, Passenger and one Pit Crew member must all sign the entry form. If there are any changes to Driver, Passenger or Pit Crew after the entry form has been lodged, these changes will have to be recorded on the entry form. Contact the Show Society office.
10. Cars must be at the showgrounds, in parking area between 3:00pm and 5:00pm for car check.
11. Briefing at 6:15pm in marshalling yard. All Drivers and Passengers, and Pit Crew MUST attend.
12. Any evidence of Drivers, Passengers or Pit Crew partaking of alcohol or drugs within six hours of start of Derby will result in Driver, Passenger & car being disqualified from the derby.
13. Any vehicle deemed to be unsafe for Drivers, Passengers or other competitors may be disqualified at car check or during the event.
14. If vehicle can be altered to be deemed safe by the Chief Scrutineer before the Derby Parade start.
15. A spotlight will be used to warn drivers to see Derby control.

16. Helmets, long sleeve shirts, long trousers and proper shoes must be worn by Drivers and Passengers. No nylon clothing, including underwear (nylon will melt & stick to skin).
17. Only Driver, Passenger and Pit Crew member will be allowed in centre ring until after Derby.
18. No going outside of the ring of tyres.
19. You **MUST** be trying to hit all cars at all times.
20. You must remain in your vehicle until derby is complete or until told otherwise by the control car.
21. Low & reverse gears only to be used.
22. Seat belt to be on and tight throughout the Derby (no inertia reels - see vehicle modifications).
23. There will be a target in the centre of the Derby ring. The first Derby car to hit it receives \$100.00.
24. No intentional ramming into Drivers' or Passenger's door - offenders will be disqualified from winning.
25. Vehicles stopped for longer than approx. 45 seconds can be disqualified from winning.
26. Flags on cars will be used to indicate active vehicles.
27. When your car is ineffective, stay in your vehicle and pull down your flag. You must pull down your flag if your car has been stationary for more than 45 seconds. No competing with flag down. No hitting of cars, which have flag down.
28. Winning cars will be rechecked & can be disqualified.
29. Cars must vacate the centre ring on the night of the Derby (unless prior arrangements with co-ordinator) and be out of the grounds by 11:00pm
30. No Wheel Spinning Whilst on Dog Track. PENALTY will be - Car will Park in back Straight and Driver and Passenger walk the Remainder of the Presentation on Foot.

DERBY CONTROL:

- Control car will start the derby:-
 - GREEN LIGHTS ON** = Start / keep competing
- During derby:-
 - RED FLASHING LIGHTS** = Stop immediately
- A spotlight will be used to disqualify Drivers:-
 - If it is flashed into your car = this is a warning (ie: be more careful or do more hitting)
 - When shone at length into your car = stop competing and report to control car
 - Do not argue with officials
- Most carby fires etc will burn themselves out in a short time. Control car will not attend unless Driver or Passenger are in danger.
- If rollover occurs, control car will come into derby with RED LIGHTS FLASHING to assist Driver and Passenger. Flag is to be pulled down on rollover car.

VEHICLE SPECIFICATIONS:

The only allowable modifications to cars are those listed in these specifications. If specifications differ from this sheet, then entry will be disqualified.

- For any modification for safety, or other tan listed, see Scrutineer before handing in entry
- No full chassis vehicles
- All glass, interior and exterior door handles, badges, grille, chrome strips and alloy surround etc and all flammable linings are to be removed
- Mud guards to be standard (not to be cut away)
- Bonnets not to have any holes except for hold down pins; original bonnet hinges to be used (with all bolts). Front of bonnet to be held down with maximum of two pins or tied with wire or chain. Bonnet min 4 tie-down points (eg. 4 pins or 2 x pins & 2 x chains). Pins to be no bigger than 16mm, washers no bigger than 100mm x 100mm x 5mm
- No tow bars to be fitted.
- Rims to be manufacturers' diameter for that make and model; tyres can be changed.
- Bumper-bar to be in original position; only original bumper mounts to be used. Top of bumper-bar not to be higher than 700mm from the ground.
- Radiator to be standard car type; to be in approx. original position; original heat in heater box may be left connected. No other radiator type devices to be fitted.
- Radiator to be filled with water only (NO COOLANT). If stop-leak additives are needed consult with Scrutineer.
- Battery to be securely mounted with a metal bracket on top of the battery with at least two 8mm (5/16) bolts through bracket and car floor with adequate washers and or plate (plate to be larger than battery size and must be between 2mm and 8mm thick). Only one 12-volt battery to be used.
- Three-point seat belt for both Driver and Passenger; BOLTED IN – not welded. NO INERTIA/REEL BELTS.
- Vehicles with too much rust may not be allowed to enter.
- All vehicles have to have a minimum 75mm by 50mm (3" x 2") steel bar or equivalent across each front door to protect hips and legs, with 2 x ½" bolts through each bar and outside of door or pillar, with 2 pipes, one behind seat and one across the dash. Pipe to be a minimum of 40mm (1½") diameter or equivalent between the centre of ends of the 75mm x 50mm bars.
- Pipes to be water pipe or heavier as per diagram.

- A steel plate at least 8mm thick and approx. 600mm x 400mm, between 75mm x 50mm bars and door, for both Driver and Passenger to add further protection to hip and leg.
- A 40mm (1½") or larger pipe between door pillars near top of seat to support rear of seat and prevent door pillars collapsing.
- Passenger must have grab handle securely mounted to dash bar work.
- Approved fuel tank only to be used. Fuel tank must be securely mounted with 4 bolts, not within 0.8 of a metre of rear of car, with 20 litre tin strapped over fuel tank (20 litre tin must be able to hold fuel in case of roll over).
- A hole at least 1" diameter must be punched in old fuel tank or tank to be removed.
- Fuel line to be no larger or longer than original fuel line. Only fuel filter fitted is to be no larger than Ryco Z 14 KA. Screw up hose clamps to be used on all fuel line connections.
- Devices to create smoke are not permitted. Vehicles not to be excessively smokey.
- Vehicles to have brakes, minimum 2 wheel lock up
- No spare tyre in vehicle
- Doors and boot/tailgate to be welded or tied shut. Minimum weld is 1 inch of weld and 100mm gap. Option to fully weld drivers and passenger doors.
- Motor and diff not to be changed (Holden motor and diff in Holden etc)
- Accelerator (throttle) must be operated by right foot
- Gearshift to be operated by hand from upright seated position
- There is to be a 500mm square in plain colour on both the Driver and Passenger's door, for number to be painted on. Car number will be allocated by the Society. Also a roof number is to be fitted (tin plate 300mm x 200mm screwed to roof not directly above the Driver or Passenger).
- Driver's name to be printed clearly on roof above Driver's door.

OPTIONAL MODIFICATIONS:

- Driver and Passenger must be able to exit through front door windows or windscreen.
- Diff can be welded.
- Minimum weld is 25mm of weld and 100mm gap right around doors, boot and tailgates. Option to fully weld drivers and passenger doors. 4mm rods or 25x2mm flat, no rio bar to be used. Roof bow can be used and doesn't cost anything.
- Rubber engine and gearbox mounts may be replaced with steel or chain
- Accelerator, clutch and gear linkages may be changed – but see compulsory specifications above.
- Back-up throttle may be fitted
- Suspension can be locked up etc
- Fan can be removed and a 125mm of tin may be attached to radiator in front of fan pulley
- Wiring may be changed
- Seat can be changed
- Modifications may be permitted to cars with excessive rust or been in previous derbies. Scrutineer to be contacted before modifications are made. Modifications to be noted on entry form. Scrutineer to be shown work done at car check. Any modifications are not to reinforce car. If in the Scrutineer's opinion the modifications result in a vehicle being stronger than originally made, the car may be disqualified.
- Fuel injected cars.
- Fuel tank and external fuel pumps "EFI" must be secured together under tin.
- ½ hour cooling off before salvage of vehicles.

PRIZE MONEY

1 st	\$700.00
2 nd	\$300.00
3 rd	\$200.00
HIT CAR	\$100.00
BEST PRESENTED	\$200.00

QUEENSLAND SHOWS

MAN/LADIES DEMOLITION DERBY CAR PREPARATION RULES

The rules and specifications listed here are to be read and abided by in a sportsperson-like manner. Failure to do so may result in the Driver/car being excluded from the event. Any misinterpretation or misrepresentation of the rules to gain a competitive advantage be it accidental or deliberate may result in disqualification of the Driver and car. If you are in doubt – please ask!

- ALL GLASS, interior and exterior door handles, mirrors, locks, badges, grilles, chrome strips, alloy moulding and surrounds, plastic mouldings are to be removed. (This means anything which may be dislodged and become a projectile). Under-body brackets (exhaust brackets) are also to be removed.
- All unnecessary FLAMABLE MATERIAL is to be removed (hood & door linings, any plastic or rubber)
- FUEL TANK: only approved fuel tank design is to be used (1 tank per car). Fuel tank must be securely mounted with 4 bolts (not Teck screws) on a sound part of the floor. Tanks are to be 800mm or more from the rear of the car, and are to be covered with a leak and flame proof 20L metal tin, which will hold any spilt fuel in the event of a roll-over. Cover tin must be securely held at 4 points with nonflammable material eg. Right angle brackets and screwed to the floor.
- FUEL LINE is to be no longer or larger in diameter than original fuel line. The only fuel filter to be fitted is to be no larger than a plastic Ryco Z14KA or equivalent. Screw-up hose clamps must be used on all hose-connections. Fuel filter must be located between the tank and the pump. If located in cab, it must be under tank cover. Avoid unnecessary connections in fuel line. Only lead-replacement fuel or unleaded fuel to be used.
- Original fuel tank must be removed completely or have a hole of at least 25mm (1”) in diameter punched into it at lowest point in bottom of fuel tank. Do not try to cut a hole in a tank with a grinder, oxy or any device that may create a spark, even if it is empty.
- HOSES, ELECTRICAL WIRING and FUEL LINES may be re-routed in the engine bay. Re-routing of the fuel line must not increase the overall length of the fuel line. When re-wiring ignition, starter etc. use a grommet when passing wire through steel panels (they may rub through and cause an electrical fire otherwise). Keep electrical wiring and fuel lines at least 150mm apart. Re-routing of cooling system hoses must not increase the volume of water in the cooling system.
- IGNITION or KILL SWITCH and starter switch must be able to be reached by both the Driver and Passenger without undoing or slipping out of seatbelt. Switches MUST be used. Twitching wires together to start/stop is not acceptable.
- BATTERY to be securely mounted with a metal bracket (plastic holders are not acceptable) on top of the battery with at least two 8mm (5/16”) bolts through bracket and car floor with adequate washers under floor, or attached to a substantial base frame which is mounted to floor with adequate washers. If battery is mounted inside cabin, an acid-proof cover must be effectively fitted. If using a rubber inner tube, cut holes so they seal around the battery terminals, or seal the holes with silicone. Passengers will not be allowed if battery is fitted on the front floor. Do not mount the battery on the tunnel or on the same side of the car as fuel tank. Leave a gap of at least 150mm between battery and tank. One 12 volt battery only allowed.

- SEAT BELTS: 3 point or better for Driver and Passenger. Must be bolted in, not welded. Belts to be in good condition (no burn marks or fraying). Inertia reels are not acceptable.
- All cars to have a minimum 75x50x3mm (3" x 2") RHS or equivalent steel beam across each front door to protect the Driver and Passenger's legs and hips. The beam should follow the line of your leg from hip to knee when seated. These beams are to be secured to the door pillars (front and rear) using at least one ½" bolt at each end. The bolts should pass through the beam and door pillar but are not to extend beyond the surface of the door skin. You may also weld the beams to door pillars, but they still do need to be bolted.
- If you wish to fit optional side intrusion bar (minimum size 50x50x3mm)
- Pipe is to be welded between the left and right beams (one behind the seat and one across the dash). The pipe is to be butted up against the centre of the vertical face of the ends of each beam. The pipe is to be a minimum of 40mm (1½") nominal bore black steel 3mm wall thickness (gal water pipe will not be accepted). In addition a steel plate of at least 4mm thickness and approx. 600x400mm is to be located between the 75x50mm beam and the door for both Driver and Passenger (if applicable) to add further protection to the legs and hips.
- A 40mm (1½") or larger NB black steel pipe is to be welded between the door pillars near the top of the seat to support the rear of the seat and to help prevent the pillars from collapsing. A piece of 50x6mm flat steel should be welded to the ends of the pipe and run forward to the pillars.
- Passenger must have a securely mounted GRAB HANDLE (min 15mm outside diameter). Be aware of the height of your Passenger when fitting a grab handle. Light walled conjute is not acceptable.
- BRAKES: Minimum of two wheel lockup.
- SPARE TYRE is to be removed. If the car was fitted with an under-car carrier, this must be removed.
- TOW BARS to be removed.
- GEARSHIFT to be operated by hand from Driver's seat without undoing or slipping out of seatbelt. Holes cut in floor for gearshift must not exceed 250mm x 120mm.
- ACCELERATOR must be operated by the Driver's right foot. A hand operated back-up or extra accelerator is allowed.
- DOORS can be welded on the outside in four spots. Each weld is to be no longer than 2 inches or 50mm. Doors, boot and tailgate are to be chained as well with 6mm chain or bigger. Chains must be joined with a D shackle or nuts and bolts with 2 washers.
- DOOR CHAINS must go through where door handles were removed from. Then around the pillar so they are secure.
- BONNETS/BOOT/TAILGATE is not to have any holes except for hold-down pins. Original hinges are to be used and must have all bolts. A maximum of 2 x straight bolts are allowed in total and are to be a maximum diameter of 10mm and maximum length of 300mm. All washers to be a maximum of 100mm x 100mm x 4mm. Bonnet min 4 tie-down points (eg. 4 pins or 2 x pins & 2 x chains). Pins to be no bigger than 16mm, washers no bigger than 100mm x 100mm x 5mm

- BONNET INTRUSION BARS are now compulsory, regardless of whether bonnet is front/rear hinged. Weld 2 x 10mm rods from the firewall to roof, to protect against bonnet coming through between windscreen pillars.

Engine Bay and Drive Line:

- Radiator to be standard car type and to be mounted in approx. the original position. Heater box to be removed and holes are to be covered. No other radiator type devices are to be fitted. Radiators are to be filled with water only. No additives, unless stop leak is required, in which case you must consult a Scrutineer for approval.
- FAN can be removed and a 125x125mm square metal (1.6mm or less) may be attached to the radiator in front of the fan pulley.
- MOTOR - Motor may be swapped with an identical size/model as per original production. Any other changes must be done with prior written request of Chief Scrutineer. This ruling may enable you to change a fuel injected motor for a carburetted motor of similar capacity.
- No DIESEL engines.
- CLUTCH linkages may be changed to cable or hydraulic systems.
- DIFF centre may be welded or locked, but housing must not be welded to sub-frame via spacers.
- Devices designed to create smoke will not be allowed. Excessively smoky cars may be excluded.

Car Body:

- NO FULL CHASSIS CARS
- RUST: Cars with excessive Driver/Passenger compartment rust may be judged by the Scrutineers to be unsafe and may be excluded. Any MODIFICATION considered necessary to a car with excessive rust, or one which has been in a previous derby must be pre-approved by a Scrutineer. Only if and when modification is approved should work be commenced. Modifications must be carried out strictly in line with Scrutineers' recommendations and shall in no way reinforce the car. These must be noted on entry form and pointed out at Scrutineering.
- MUDGUARDS are to be standard (not to be cut away unless car has been in previous derby and approved by Chief Scrutineer). No welding or cutting to gain a competitive advantage.
- Cutting of any BODY PANELS including sub-frame is prohibited.
- BUMPER BARS are to be in the original position and are to be identical to the original bars. No steel bars in place of plastic. Only original mounts are to be used. If you are running a plastic bumper, paint your number on it and make sure you take it home.
- SPRING LEAVES: Excessively protruding spring leaves on cars that have competed in previous derbies must be cut off. The ends of original spring clamps may be welded together.

- **REAR SUSPENSION:** All cars must meet a common height of 300mm from flat ground to bottom of sill at the points closest to each wheel. We will be using a standardized measuring tool to ensure cars are not excessively high. If you choose to insert pipe to raise rear suspension the pipe must be securely welded and tied to vehicle with chain as a back-up in the event of a weld breaking. If the Scrutineer feels any modification to rear suspension is unsafe, or car is excessively high, the car will not be allowed to compete. For this reason, modifications are allowed, but strongly discouraged. This applies to fresh AND second hand cars.
- No BODY FILLER (bog). All welds must be visible.

Wheels & Tyres:

- WHEEL WEIGHTS are to be removed
- RIMS are to be manufacturers' diameter for that make and model. Mag wheels can be replaced with same-sized steel rims
- TYRES can be changed
- SEATS may be changed, but must be mounted securely
- Cars must be clean internally (no rubbish inside)

Below are the diagrams of the layout of the required bar work. This bar work is designed to reduce your chances of injury in case of a side impact. As the diagrams indicate, the 75x50mm RHS is to run in line with your upper leg.

DIAGRAM 1

- 40mm NB 3mm (or stronger wall pipe)
- Plate to secure pipe to door pillar
- 75x50x3mm (or stronger RHS)

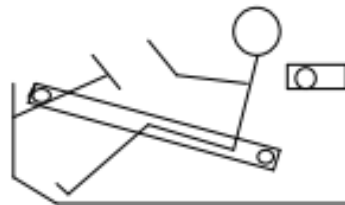
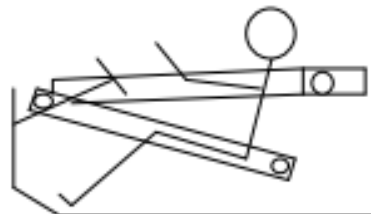


DIAGRAM 2

- 40mm NB 3mm (or stronger wall pipe)
- Optional side intrusion bar (parallel to door sill)
- 75x50x3mm (or stronger RHS)

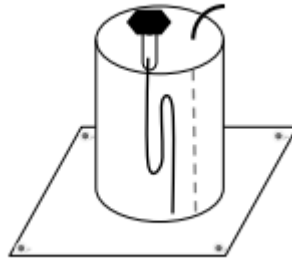


Terms and Abbreviations Used:

- NB** Stands for Nominal Bore and is an approximate inside diameter. For example: 40mm NB is at least 40mm inside and usually 50mm outside.
- MILD STEEL** Refers to a low carbon grade of steel that is easy to cut and weld.
- BLACK STEEL** Refers to untreated mild steel (it may be painted, but must not be galvanised)

RHS Refers to Rolled Hollow Section and indicates how it was formed (also called Rectangular Hollow Section)

GAL Refers to galvanised steel and while it is of similar strength to mild steel it requires advance welding skills. It can appear to be welded correctly, but is often only a surface weld with no strength.



FUEL TANK: Made from 150mm internal diameter exhaust or aguer tubing. 230mm high. Base plate 250mm x 250mm, made from 2mm thick plate. Hole drilled in each corner. Top made from 2mm thick plate. Filler cap: ¾ inch male threaded pipe (60mm long), to take female cap. Breather tubed is to come out of filler pipe and to either wrap around of go up and down tank to prevent siphoning. Suction pipe to exit top of tank. No delivery pipes to be fitted to bottom of tank.

DERBY CONTROL:

- Control car will start the derby:-

GREEN LIGHTS ON = Start / keep competing

- During derby:-

RED FLASHING LIGHTS = Stop immediately

- A spotlight will be used to disqualify Drivers:-
 - If it is flashed into your car = this is a warning (ie: be more careful or do more hitting)
 - When shone at length into your car = stop competing and report to control car
 - Do not argue with officials
- Most carby fires etc will burn themselves out in a short time. Control car will not attend unless Driver or Passenger are in danger.
- If rollover occurs, control car will come into derby with RED LIGHTS FLASHING to assist Driver and Passenger. Flag is to be pulled down on rollover car.

SAFETY COMPETITORS SERIOUSLY INJURED

This competition should be stopped and injured persons vehicle towed off to safe location (if possible, without causing further injuries) for the First Aid Providers to attend to remove the competitors. Competitors with serious injuries should be removed with care and not removed until the injuries have been diagnosed by **FIRST AID PROVIDERS**